CLARK® Material Handling Company

CGH23/25

Pallet Truck

Operator / Parts & Service Manual

OPM-708

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INSTRUCTIONS

RAISE POSITION

Depress the lever and pump handle until pallet has reached the desired height. A Clearance of 1" between the floor and pallet is usually sufficient to move the load. Do not lift the load with one fork or extremity of the forks.

NEUTRAL POSITION

The neutral position is found between the raise and lower position. This neutral (drive) position disengages the lifting mechanism making the handle free from hydraulic resistance and becomes almost weightless, yet the forks retain their raised position. Always use the neutral position when moving a load.

LOWER POSITION

Pull the lever up to lower the forks. The lever is spring loaded for lowering only, therefore when you release the lever it will automatically return to the neutral position.

WARNING

For safe operation of Hand Pallet Trucks, please read the following instructions:

1. Do not operate a Hand Pallet Truck unless you are familiar with it and have been trained and authorized to do so. Read all warnings and instructions here and on the truck.
2. Do not operate a Hand Pallet Truck until you have checked its condition. Give special attention to the wheels, handle, forks, lift and lower control.
3. Do not operate a damaged or faulty truck. Do not attempt repairs unless you are trained and authorized to do so.
4. Operate Hand Pallet Trucks only from the designated operating position. Never place any part of your body in the lifting mechanism or under the forks or load. Do not carry passengers.
5. Do not handle unstable or loosely stacked loads. Use special care when handling long, high or wide loads to avoid losing the load, striking bystanders, or tipping the truck.
6. Do not overload the truck. Check capacity plate for carrying capacity information. Overloading may cause truck to perform incorrectly.
7. The capacity of the truck assumes an evenly distributed load with the center of the load being at the halfway point of the length of the forks.
8. Make sure that the length of the forks matches the length of the pallet. Using a pallet truck where the forks are longer than the pallet will damage the truck if the pallet truck is pushed through the pallet and the forks are under a second pallet behind the one being lifted. When lowering the load, make sure the area where the pallet is to be placed is clear.
9. Observe traffic regulations. Yield right of way to pedestrians. Stop at cross aisles.
10. Hand Pallet Trucks are for general operation on level, flat hard surfaces.

FAILURE TO FOLLOW THESE INSTRUCTIONS MAY CAUSE SERIOUS INJURY TO THE OPERATOR OR OTHERS.

THREE-MONTH MAINTENANCE SCHEDULE

1) Check oil level.
2) Lubrication-joints, pins, axles, pushrods, steering wheel bearings with good molybdenum type grease.

ORDERING PARTS

The CGH23/25 Hand Pallet Trucks are distributed through CLARK dealers that are eager and capable to service your equipment. Whenever parts, adjustments, or repairs are needed, please call your local CLARK dealer. When doing so "please be sure to give them your truck model number and use part numbers and nomenclature as shown in the following pages. Adherence to the above procedure will save time and provide speedy assistance when it counts.

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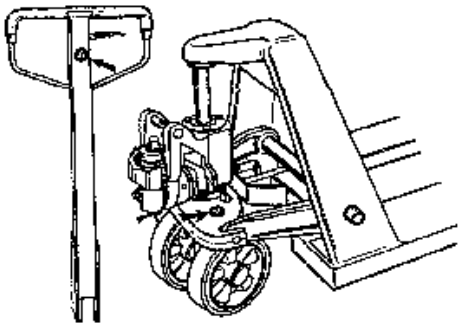
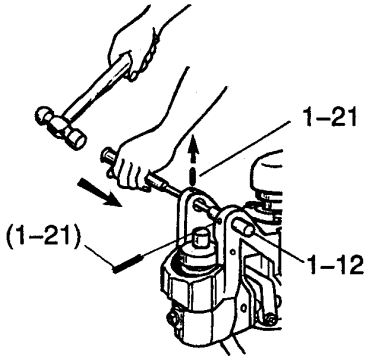
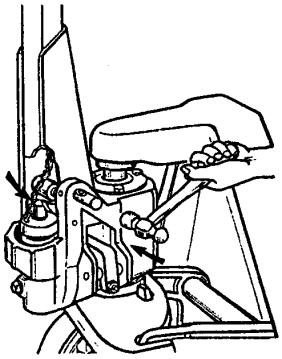
Handle Assembly Instructions



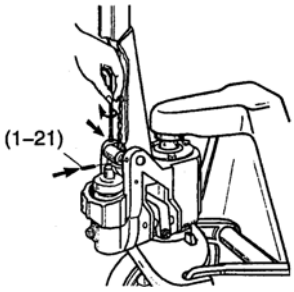
1) Make sure the symbols on the handle and on the pump are the same.



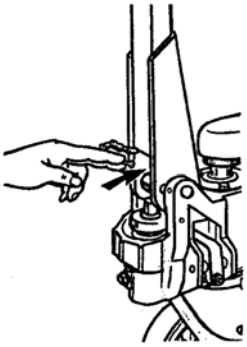
(2) Remove the set screw 1-21 and roll pin (1-21), Tap out shaft (1-12).



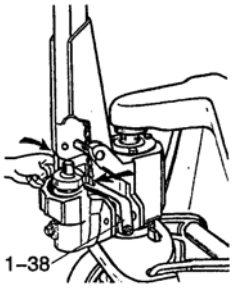
(3) Place handle onto pump body and pull the chain from handle. Tap shaft into place (1-12).



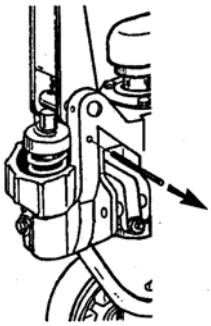
(4) Install roll pin and then set screw into the shaft.



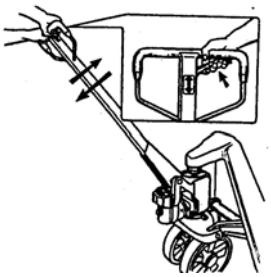
(5) Insert chain through shaft.



(6) Connect the chain with spring clip (1-38).



(7) Remove the pin from pump.



(8) Pump the handle about 10 times while holding lever in the lower position to bleed any air from the system.

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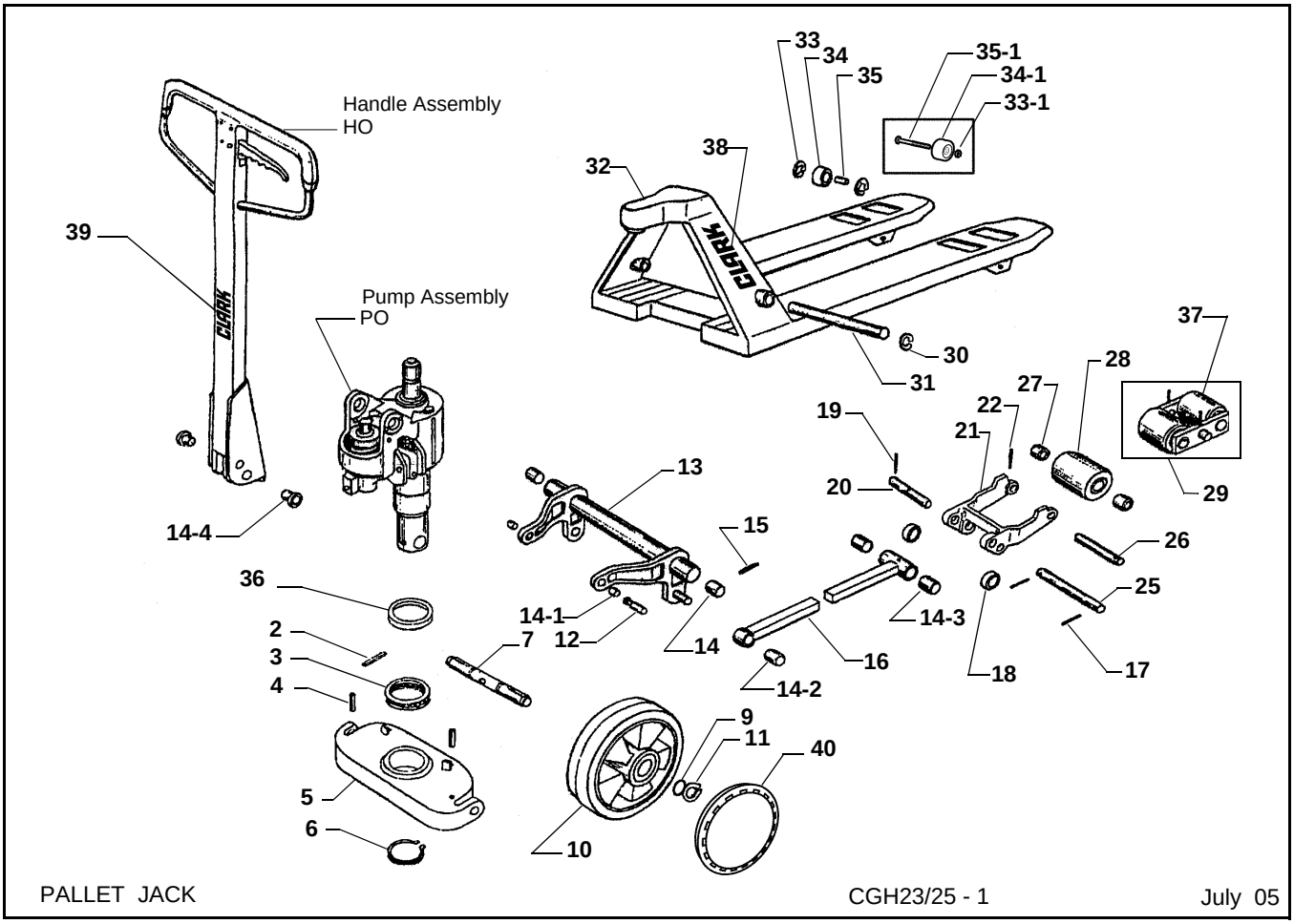

PALLET JACK CGH23/25 - 1 July 05

Item	Part No.	Qty.	Description
1	4155449	1	Handle & Pump Complete
HO	4575294	1	Handle Assy
PO	4575261	1	Pump Assy
2	4155353	2	Spring Pin
3	4155450	1	Bearing
4	4155354	2	Spring Pin
5	4155451	1	Pressure Plate
6	4155355	1	Circlip
7	4155452	1	Wheel Shaft
9	4155357	2	Washer
10	1806274	2	Wheel (rubber)
10-1	1806275	2	Wheel (Poly, aluminum rim)
10-2	1806276	2	Wheel (Poly, iron rim)
10-3	1806277	2	Wheel (nylon)
10-4	1806278	2	Wheel with bearings (rubber)
10-5	1806279	2	Wheel w/bearings (Poly, aluminum rim)
10-6	1806280	2	Wheel w/ bearings (Poly, iron rim) (Standard)
10-7	1806281	2	Wheel with bearings (nylon)
11	4155359	2	Circlip
12	4155360	2	Arm Pin
13	1806287	1	Lift Arm (fork width 685mm)
13-1	4155455	1	Lift Arm (fork width 540mm)
13-2	1806288	1	Lift Arm (fork width 520mm)
14	4155456	2	Copper Bush
14-1	4575295	2	Copper Bush
14-2	4575296	2	Copper Bush
14-3	4575297	4	Copper Bush
14-4	4575298	2	Copper Bush
15	4155361	2	Spring Pin
16	1806289	2	Push Rod
17	4155458	4	Spring Pin
18	4155459	4	Exit Roller
19	4155460	2	Spring Pin

Item	Part No.	Qty.	Description
20	4155461	2	Shaft
21	4155462	2	Load Wheel Frame
22	4155463	2	Spring Pin
25	4155464	2	Shaft
26	4155465	2	Shaft
27	4155364	4	Washer
28	1806290	2	Load Wheel (Poly) (Std-Single)
28-1	1806291	2	Load Wheel (Nylon) (Std-Single)
28-2	1806292	2	Load Wheel with bearings (Poly) (Std)
28-3	1806293	2	Load Wheel with bearings (Nylon)
29	4155466	2	Opt Tandem Load Wheel Assy (Poly)
29	4155467	2	Opt Tandem Load Wheel Assy (White Nylon)
29	4155468	2	Opt Tandem Load Wheel Assy (Black Nylon)
30	4155366	2	Circlip
31	1806294	1	Long Shaft (fork width 685mm)
31-1	4155469	1	Long Shaft (fork width 540mm)
31-2	1806295	1	Long Shaft (fork width 520mm)
32	4155470	1	Fork Body (fork width 685mm)
32-1	1806571	1	Fork Body (fork width 540mm)
32-2	1806572	1	Fork Body (fork width 520mm)
33	4155471	2	Circlip
33-1	1806826	2	Nut (serial #88614-93065 only)
34	4155472	2	Entry Roller
34-1	1806828	2	Entry Roller (serial #88614-93065 only)
35	4155473	2	Shaft
35-1	1806827	2	Bolt (serial #88614-93065 only)
36	4575246	1	Cap of Bearing
37	4575288	4	Opt Tandem Load Wheel (White Nylon)
37-1	4575229	4	Opt Tandem Load Wheel (Black Nylon)
37-2	4575227	4	Opt Tandem Load Wheel (Poly)
38	1806541	2	CLARK Decal (black)(on fork body)
39	1806542	1	CLARK Decal (white)(on handle)
40	1806698	2	Hub Cap

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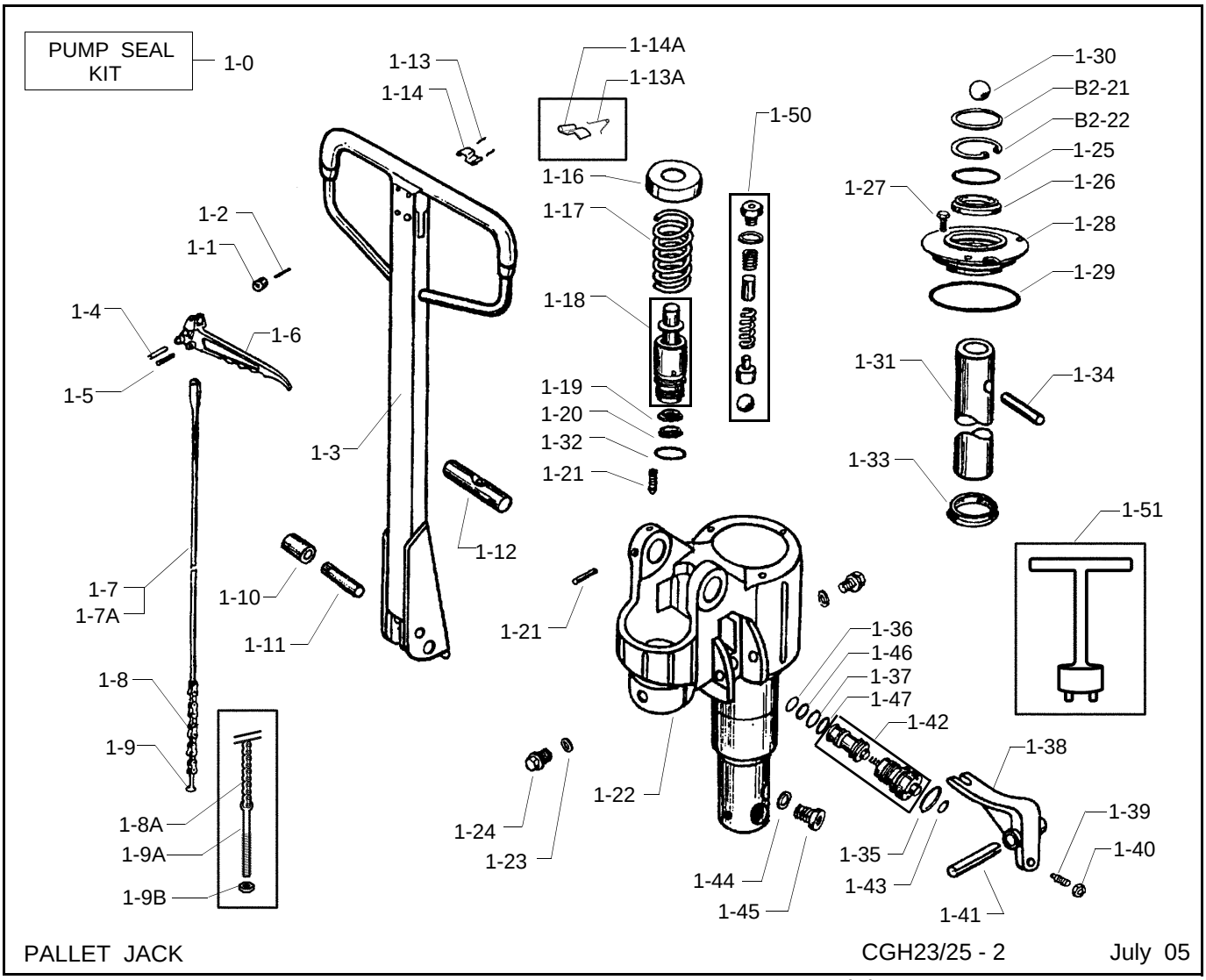

PALLET JACK CGH23/25 - 2 July 05

Item	Part No.	Qty.	Description
1-0	1806297	1	Seal Kits
1-1	4155432	1	Stop Rubber
1-2	4155433	1	Spring Pin
1-3	4155434	1	Handle
1-4	4155367	1	Spring Pin
1-5	4155368	1	Spring Pin
1-6	4155369	1	Lowering Lever (Finger Tip)
1-7	4155370	1	Linkage
1-7A	1806833	1	Linkage (serial #88614-93065 only)
1-8	4155371	1	Chain
1-8A	1806832	1	Chain (serial #88614-93065 only)
1-9	4155372	1	Chain Rod
1-9A	1806830	1	Rod (serial #88614-93065 only)
1-9B	13DM00004	1	Nut (serial #88614-93065 only)
1-10	4155373	1	Pressure Roller
1-11	4155374	1	Shaft
1-12	4155495	1	Shaft
1-13	4155375	2	Spring Pin
1-13A	1806834	1	Spring Pin (serial #88614-93065 only)
1-14	4155376	1	Spring Plate
1-14A	1806829	1	Spring Plate (serial #88614-93065 only)
1-16	4155436	1	Spring Cap
1-17	4155437	1	Spring
1-18	4155438	1	Plunger Assy
1-19	4155378	1	Seal DH18
1-20	4155379	1	Seal DH18
1-21	4155439	1	Screw
(1-21)	4575299	1	Spring Pin
1-22	4155934	1	Pump Body

Item	Part No.	Qty.	Description
1-23	4155441	2	Washer
1-24	4155442	2	Screw Plug
1-25	4155380	1	O-Ring
1-26	4155381	1	Seal UN32
1-27	4155443	1	Screw
1-28	4155444	1	Pump Cap
1-29	4155382	1	O-Ring P62
1-30	4155383	1	Ball 3/4
B2-21	4575300	1	Washer
B2-22	4575301	1	Circlip
1-31	4155445	1	Cylinder
1-32	4155384	1	O-Ring P31
1-33	4155385	1	Seal UN32
1-34	4155446	1	Pin
1-35	4155386	1	O-Ring
1-36	4155387	1	O-Ring
1-37	4155388	1	O-Ring
1-38	4155447	1	Activator
1-39	4155389	1	Bolt
1-40	4155390	1	Nut
1-41	4155391	1	Spring Pin
1-42	4155448	1	Valve Assy
1-43	4155392	1	O-Ring
1-44	4155393	1	Washer
1-45	4155394	1	Bolt
1-46	4575243	1	Pu Washer
1-47	4575244	1	Pu Washer
1-50	4575245	1	Over Load Valve Assy
1-51	1806817	1	Cylinder Tool

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TROUBLESHOOTING AND SERVICE

The Principal of the Hydraulic Pump

Lifting

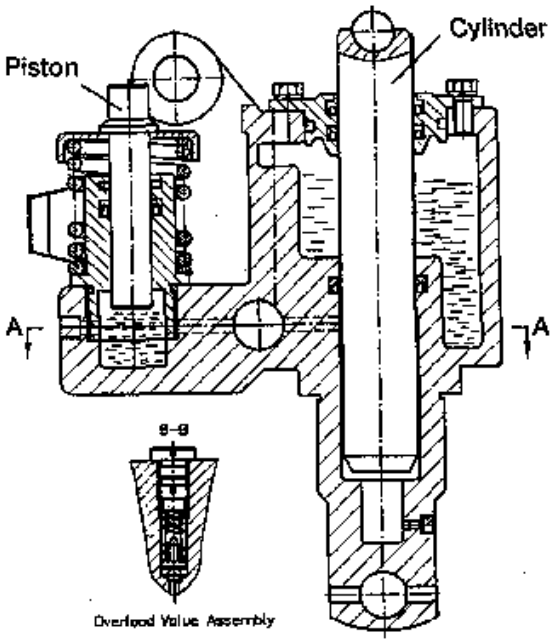
1. With the lever in the lift position – Raise the handle
   Hydraulic oil flows from the reservoir through Channel A, open Ball A, and into the pump housing through Channel B.
2. Lowering the handle – the Ball A closes, Ball B opens. The piston, through Channel B and Channel C, forces oil to the Lift Cylinder. The cylinder extends lifting the forks.

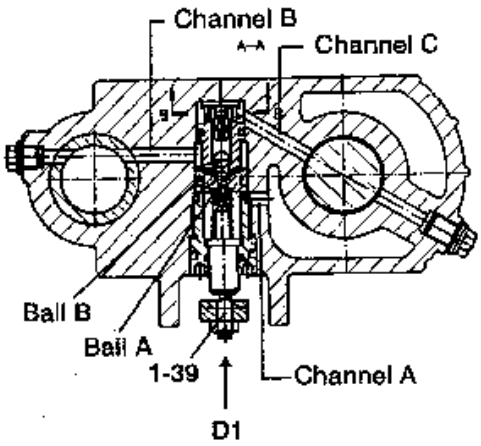
Lowering

1. Pull the lever into the Lower position.
2. Part (1-39) moves the D1 inward. Ball A and Ball B open and oil is released from the loft cylinder back to the reservoir through Channel C, Ball B, Ball A and Channel A.

Transporting

1. Place the lever in the neutral position. Part 1-39 depresses partially to open Ball A.
2. Raising the handle - oil flow from the reservoir to the pump housing through Channel A.
3. Lowering the handle – oil will flow to the reservoir from the lift pump through Channel B, Ball A and Channel A.





Cut-away Pump Diagram

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Troubleshooting

1. Truck will not lift

Check the following

1.1 Bleed the air from the Pump

Place the lever in the Lower position and pump the handle 10 times (Fig 1.1.1).

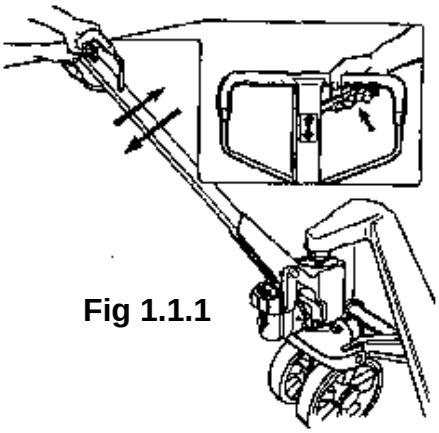

Fig 1.1.1

1.2 Check the chain (1-8)

If it is not positioned over the shaft (1-12), reposition it.

1.3 Check the Symbols

The symbol on the handle and pump must be the same (Fig 1.3.1)

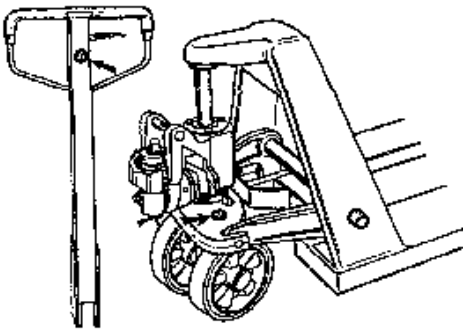

Fig 1.3.1

1.4 Adjust the valve

a. Release the screw (1-40) (Fig 1.4.1)

b. Adjust the screw (1-39) counter clockwise (Fig 1.4.2) Check to see if unit will lift. If unit lifts, continue with next step. If unit does not lift, jump to step 1.5.
Lift the truck to top position. Hold lever as shown in Fig 1.4.3, turn adjuster (1-39) clockwise until the truck starts to lower.
Tighten lock nut (1-40).

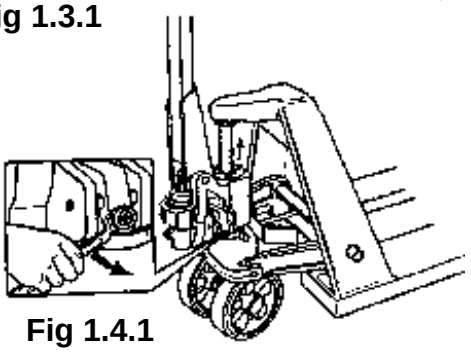

Fig 1.4.1

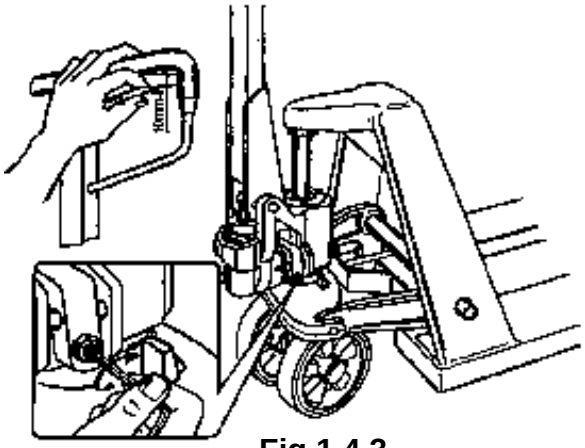

Fig 1.4.3

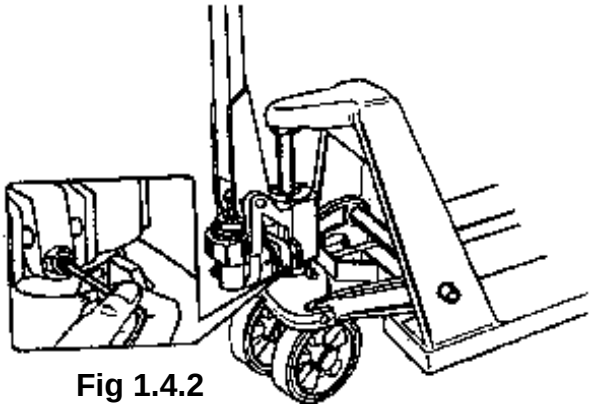

Fig 1.4.2

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1.5 Replace the Valve Assembly

Turn truck onto its side (Fig 1.5.1)

Tap out roll pin (1-14) and remove the lowering lever (1-38) (Fig 1.5.2)

Push the lift cylinder to its full raised position (Fig 1.5.3)

Remove the copper bushing (1-42) from the valve assembly (Fig 1.5.4)

Remove the valve core (1-42) (Fig 1.5.5)

Install new Valve Core (1-42) including new copper bushing.

Install roll pin (1-38).

Return to Step 1.4 for final ad

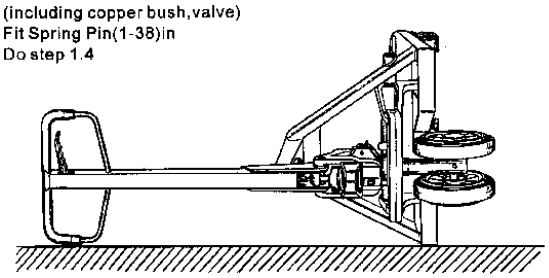

Fig 1.5.1

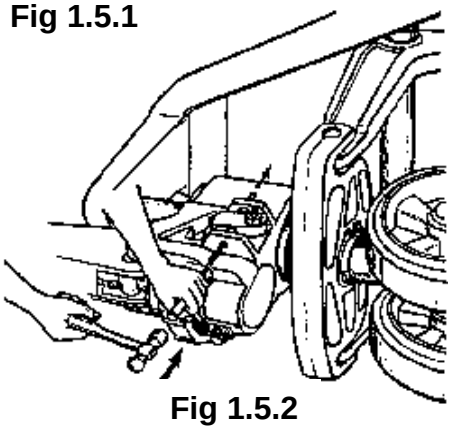

Fig 1.5.2

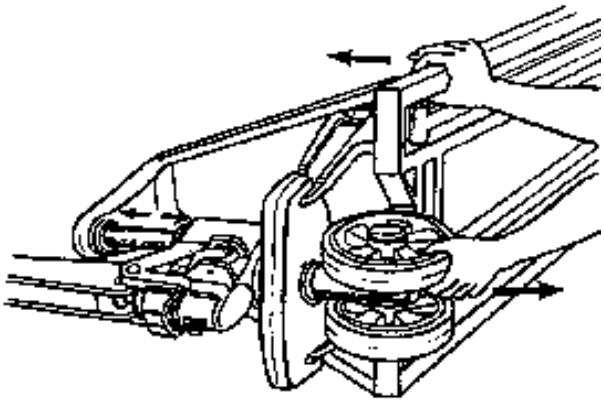

Fig 1.5.3

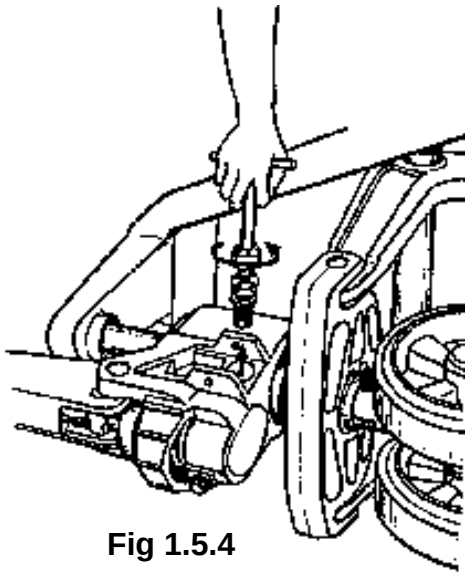

Fig 1.5.4

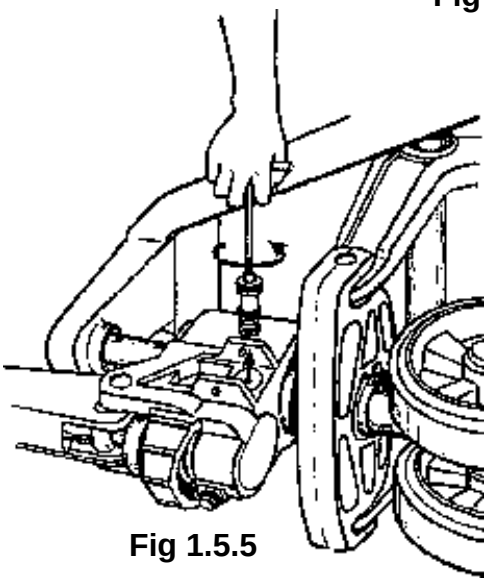

Fig 1.5.5

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2. Excessive Lift Drift

2.1 Replace Seals 1-33

Remove snap ring B2-22 (Fig 2.1.1)

Remove 3 retaining screws 1-27 (Fig 2.1.2)

Lift fork frame from top of pump unit (Fig 2.1.3)

Pull the lift piston from the pump assembly 1-31 (Fig 2.1.4)

Remove cap from top of cylinder (Fig 2.1.5)

Drain oil from cylinder (Fig 2.1.6)

Remove and replace the piston seal 1-33 (Fig 2.1.7)

Reassemble and fill with hydraulic oil and then test.

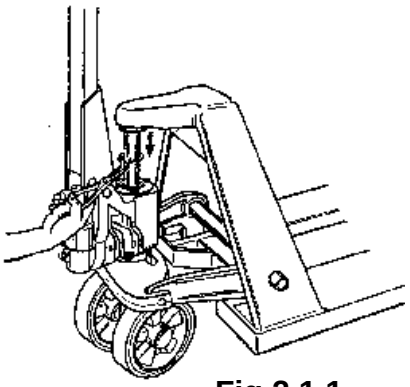

Fig 2.1.1

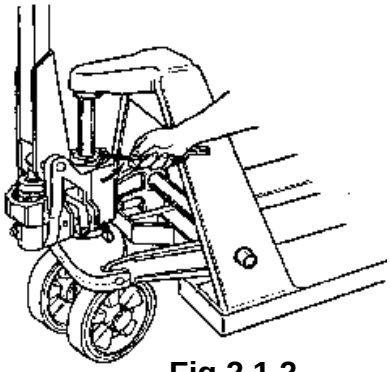

Fig 2.1.2

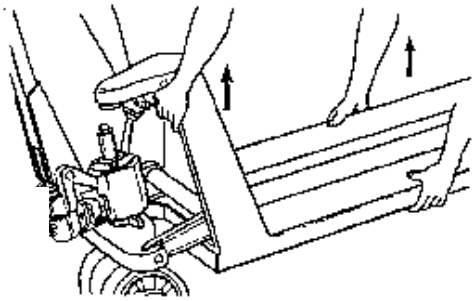

Fig 2.1.3

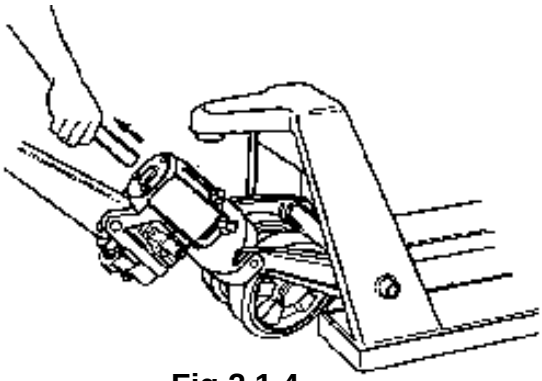

Fig 2.1.4

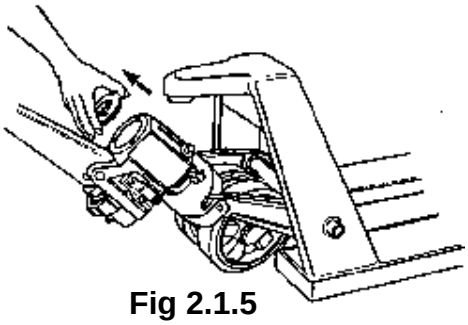

Fig 2.1.5

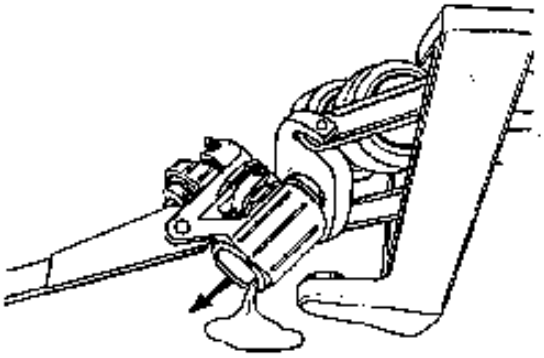

Fig 2.1.6

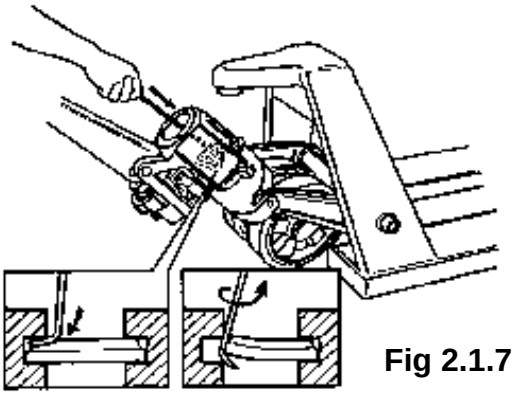

Fig 2.1.7

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3. Will Not Lower

3.1 Check the chain 1-8

Check for broken chain, replace.

Check to see that the shaft 1-12 is held in place by screw 1-21. If shaft has been free to rotate, then the chain will have been damaged by the rotation of the shaft when pumping the handle.

If the chain checks OK, continue below.

3.2 Replace valve assembly 1-42.

Refer to step 1.5

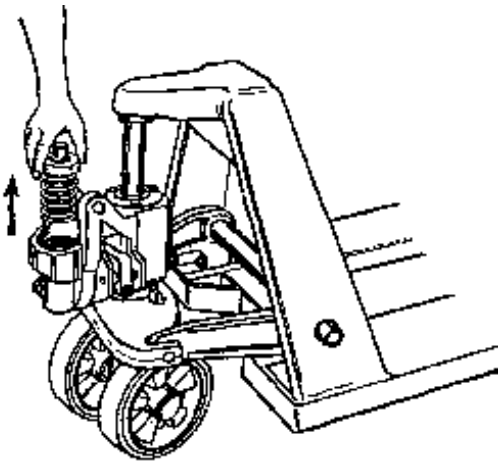

Fig 4.1.1

4. Leaks

4.1 Leak from piston

Remove piston spring 1-17 (Fig 4.1.1)

Replace seal 1-19 & 1-20 (Fig 4.1.2)

4.2 Leak from piston carriage

Remove piston spring 1-17 (Fig 4.1.1)

Remove piston assembly 1-18 (Fig 4.2.1)

Replace seal 1-32

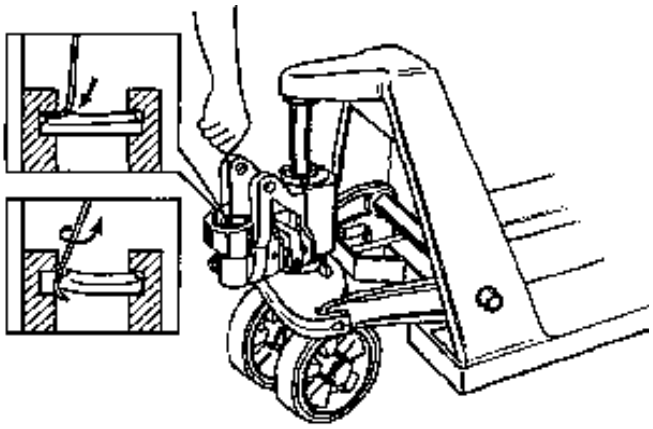

Fig 4.1.2

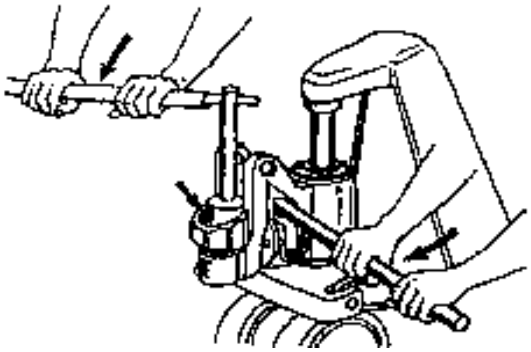

Fig 4.2.1

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5. Wheel Problem

5.1 Problem with Steer Wheel

Remove the wheel cap (Fig 5.1.1)

Remove snap ring 11 (Fig 5.1.2)

Replace steer wheel

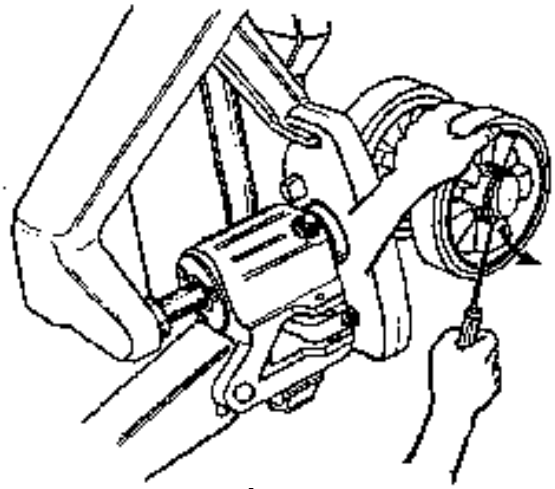

Fig 5.1.1

5.2 Load Wheel Replacement

Tap out the roll pin 22 (Fig 5.2.1)

Tap shaft out of carrier (Fig 5.2.2)

Replace load wheel

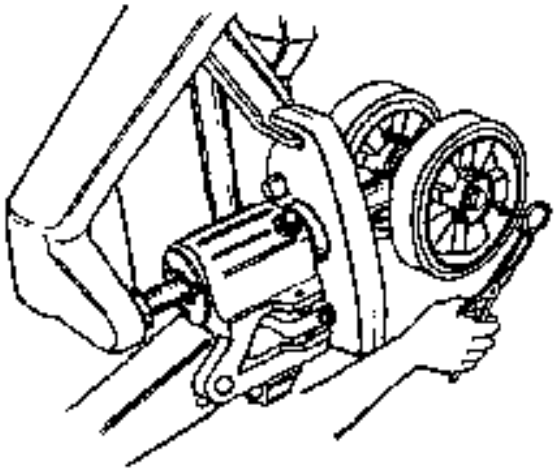

Fig 5.1.2

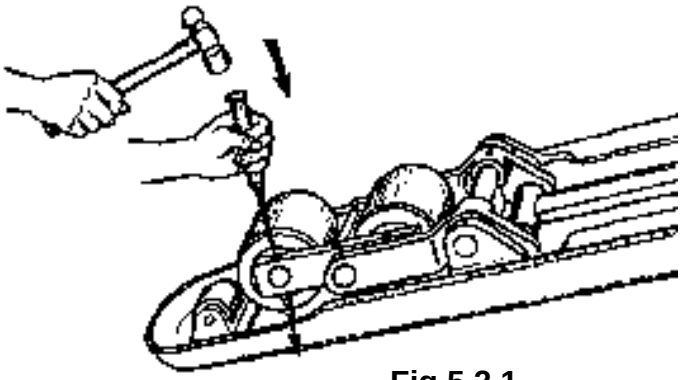

Fig 5.2.1

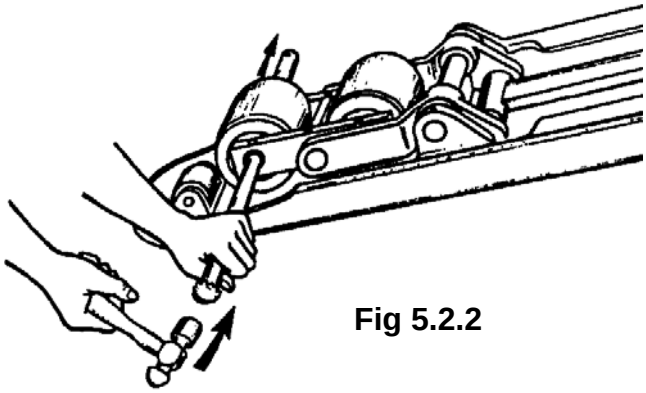

Fig 5.2.2

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6. Change or Add Oil

6.1 Change oil in reservoir

Remove snap ring B2-22 (Fig 2.1.1)

Remove 3 retaining screws 1-27 (Fig 2.1.2)

Lift fork frame from top of pump unit (Fig 2.1.3)

Pull the lift piston from the pump assembly 1-31 (Fig 2.1.4)

Remove cap from top of cylinder (Fig 2.1.5)

Drain oil from cylinder (Fig 2.1.6)

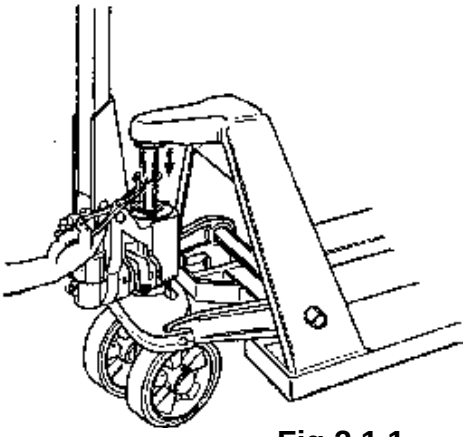

Fig 2.1.1

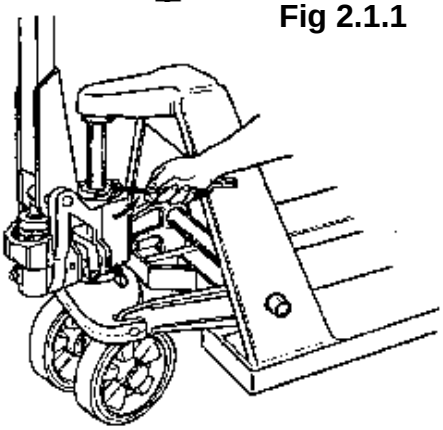

Fig 2.1.2

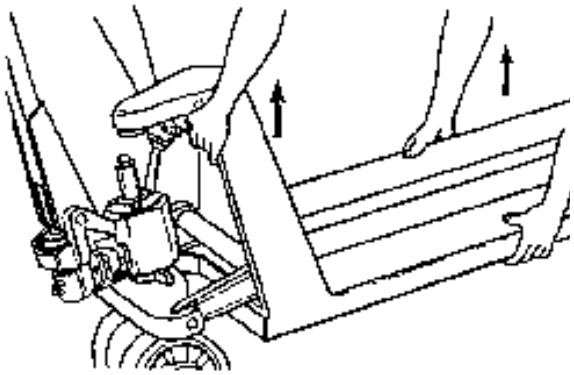

Fig 2.1.3

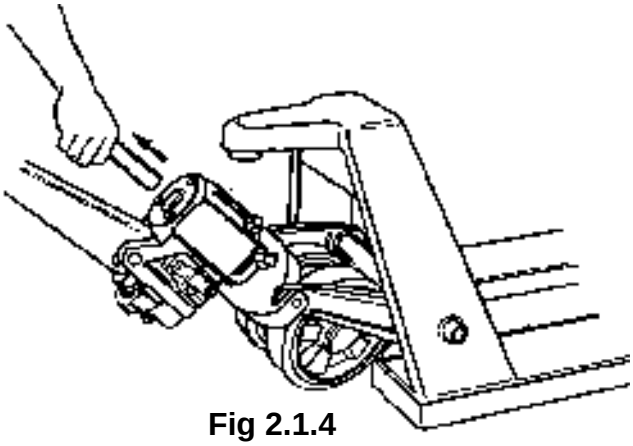

Fig 2.1.4

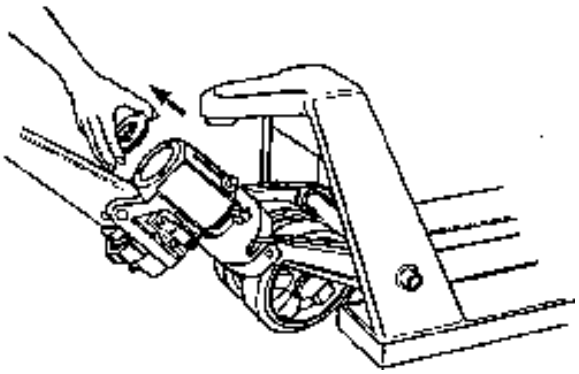

Fig 2.1.5

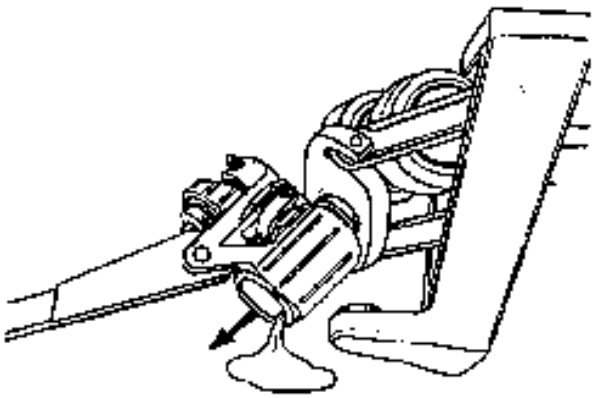

Fig 2.1.6

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6.2 Add Oil

Remove all three of the retaining screws 1-27 (Fig 6.2.1)

Lift up pump cap 1-28 to add oil as shown (Fig 6.2.2)

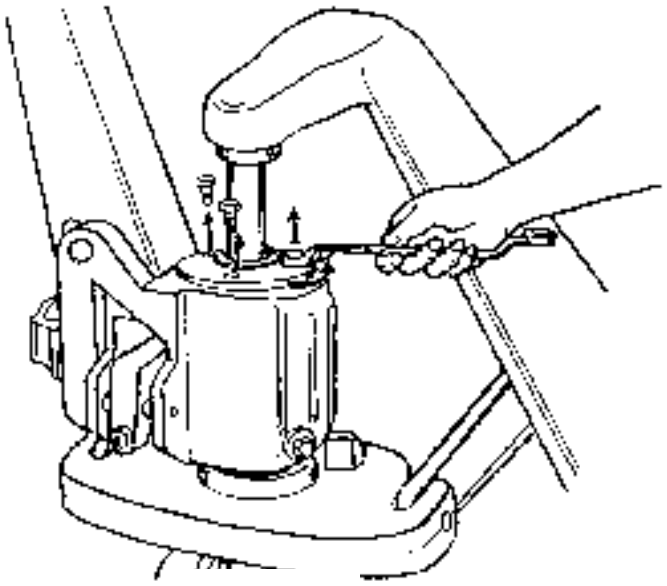

Fig 6.2.1

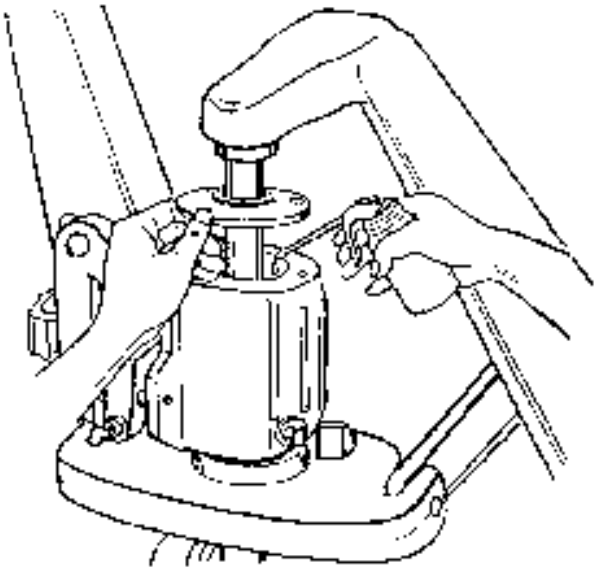

Fig 6.2.2

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